An ISO 9001:2000 Registered Company

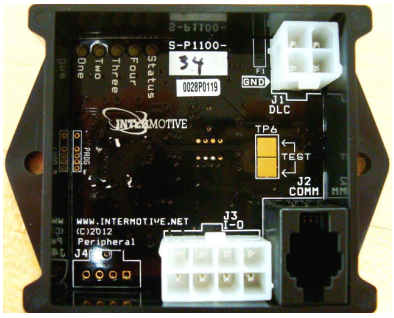
Intelligent Lift Interlock

ILISCT511-A (Manual Lift Door)

2010-2013 Ford Transit Connect

Introduction

The ILISCT511 is a microprocessor driven system for controlling wheelchair lift operation. The system operates with the vehicle ignition on or off. The ILISCT511-A (Manual Lift Door) will not allow the vehicle to be shifted out of Park if the Lift Door is open. As an added feature, it also will not allow the vehicle to be shifted out of Park anytime the Parking Brake is applied. This feature eliminates excessive Parking Brake wear due to driving with the Parking Brake applied.



Disconnect the vehicle battery before proceeding with installation.

WARNING
Disconnect the battery to prevent setting a check engine light.

IMPORTANT—READ BEFORE INSTALLATION

It is the installer's responsibility to route and secure all wiring harnesses where they cannot be damaged by sharp objects, mechanical moving parts and high heat sources. Failure to do so could result in damage to the system or vehicle and create possible safety concerns for the operator and passengers. Avoid placing the module where it could encounter strong magnetic fields from high current cabling connected to motors, solenoids, etc. Avoid radio frequency energy from antennas or inverters next to the module. Avoid high voltage spikes in vehicle wiring by always using diode clamped relays when installing upfitter circuits.

Installation Instructions

Installation personnel must be able to remove/replace the vehicle's center console and associated trim pieces to install system. Refer to Ford Service Manual or Dealer for assistance.

ILISCT511 Module Installation

1. Remove the lower dash panel below the steering wheel column (Fig.1).
2. Locate the circular trim piece on the driver's side of the dash (Fig.2), remove as shown in (Fig.3).
3. Plug the 4 pin and 8 pin White harness connectors onto the module along with the Black 4 pin LED panel harness connector.
4. Mount the module (using two-sided tape or screws) to the metal dash support as shown in (Fig.4).
5. Run the harnesses down the side and under the dash.

Figure 1

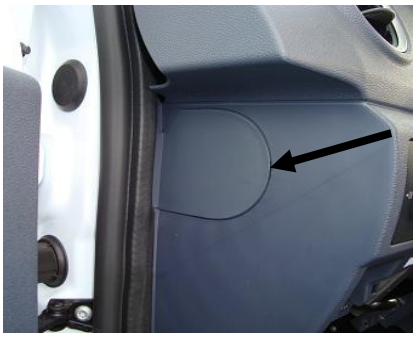


Figure 2

Figure 3

Figure 4

LED Display Panel Mounting

Suggested mounting area is as shown in (Fig.5). Ensure there is open space behind the dash where the panel is mounted. The LED panel harness is 18" inches long which is the maximum distance the display can be from the control module. Drill a 5/8" inch hole in the dashboard where the center of the display will be located. Locate the loose end of the Black 4 pin LED panel harness connector (under the dash) and run it up through the dash and out the 5/8" inch hole, plugging it onto the LED panel. Mount the panel with provided screws.

Figure 5

Harness Installation

With lower dash panel (under the steering column) and center console removed, run the two blunt cut harnesses from the module under the steering column and along side the factory wiring harnesses back to the Shifter and Park Brake assemblies (Fig.6). Secure the harness so that it does not hang below the lower dash panel when the panel is re-installed.

Figure 6

Input/Output Harness Connections (4-pin and 8-pin)

For each blunt-cut connection (except Blue and Pink wires), strip insulation from OEM wire to Parallel tap blunt-cut connection to wire with solder and tape. The use of butt connectors is NOT recommended and will void the interlock warranty. Connect the blunt-cut harness connections to the vehicle as follows:

Red - Locate the Red wire and attach to a battery source.
Black - Locate the Black wire and attach to a ground source.

Locate the C3245 connector at the rear of the shift panel. Disconnect the connector to identify pin positions.

Yellow - Locate the Green/Black wire at Pin #5 of C3245. Attach the Yellow wire to the Green/Black wire.

Blue - Locate the Green/White wire at Pin #3 of C3245. Cut the Green/White wire 3 inches from the connector. Attach the Blue wire to the connector side of the Green/White wire at Pin #3 of C3245, using solder and the supplied heat shrink tubing.

Pink - Attach the Pink wire to the harness side of the Green/White wire from Pin #3 of C3245, using solder and the supplied heat shrink tubing.

Green - Locate the Black/Yellow wire at Pin #2 of C3245. Attach the Green wire to the Black/Yellow wire.

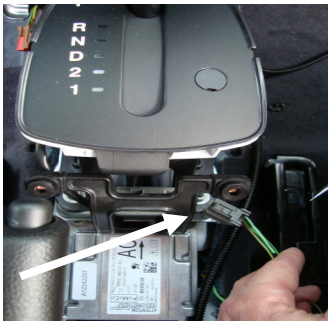
Purple - Locate the Park Brake switch. Disconnect the connector and attach the Purple wire female connector to the switch.

Brown - Connect the Brown wire male connector to the female OEM harness connector from the Park Brake switch harness.

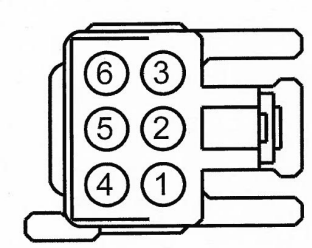
Note: Extend the Orange and Gray wires to an area near the lift door and attach the two pin connector to the mating two pin connector from the relay harness.

Black - Attach the Black wire to a Lift Door switch ground output to apply a ground signal when the lift door is open.

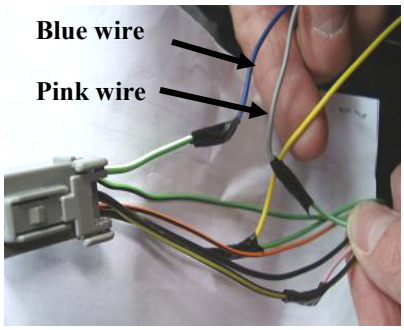
Plug the 9 pin connector (Braun lifts) or the 4 pin connector (Ricon lifts) into the mating connector at the lift.

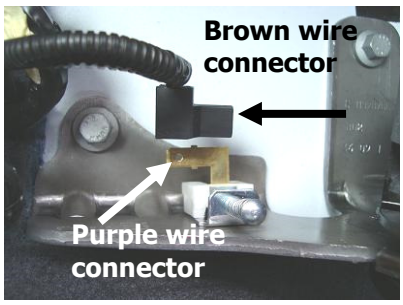


Connector C3245



Front of Connector





Park Brake Switch

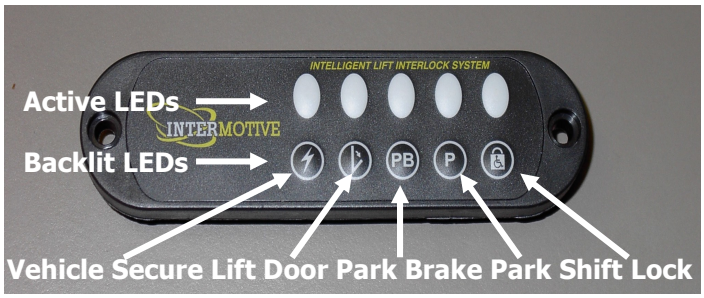
Reconnect vehicle battery

Post Installation/Check List

The following checks must be made after installation of the system, to ensure correct and safe operation of the lift. If any of the checks do not pass, do not deliver the vehicle. Recheck all connections as per the installation instructions.

Begin the checklist with the vehicle in the following state:

- Lift stowed
- Lift Door closed
- Park Brake set (PB)
- Transmission in Park (P)
- Ignition off (Key off). Wait until the module goes into "Sleep" mode (all panel LEDs OFF) which takes approximately 5 minutes.



1. Turn ignition key on (to "Run"), verify the module wakes up and all 5 LEDs illuminate for approximately 2 seconds. The lower icon LEDs are backlit and will remain illuminated whenever the module is awake.
2. Verify that the Park LED, the Park Brake LED, and the Shift Lock LED remain illuminated.
3. Attempt to deploy the lift. Verify the lift does not deploy with the Lift Door closed.
4. With key on, Lift Door open, Park Brake set and transmission in Park, all 5 LEDs will be illuminated. Attempt to deploy the lift. Verify lift operation, then stow the lift.
5. With key on, Lift Door open, transmission in Park, release Park Brake. Verify that the Park Brake (PB) and Shift Lock LEDs go out and attempt to deploy the lift. Verify the lift does not deploy.
6. With key on, Lift Door closed, Park Brake set, attempt to shift the vehicle out of Park. Verify the vehicle cannot be shifted out of Park.
7. With key on, Lift Door open, Park Brake released, attempt to shift the vehicle out of Park. Verify the vehicle cannot be shifted out of Park.
8. With key on, Lift Door closed, Park Brake released and the Service Brake applied, attempt to shift the vehicle out of Park. Verify vehicle will shift out of Park. If any of these tests fail, enter diagnostic mode below.

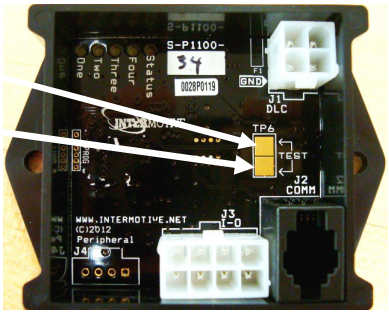
Lift Interlock Diagnostic Mode Testing

Enabling Diagnostic Mode allows a visual indication of system status and can be used as a troubleshooting tool in conjunction with the above tests. The module is fully functional in this mode.

Enter Diagnostic Mode by the following steps.

1. Place transmission in Park and turn ignition to run position.
2. Diagnostic Mode is entered by shorting the two "Test" pads together. LED's on the module will prove out, then become status indicators:

- LED 1 will be on when Shift Lock enabled.
- LED 2 will be on when transmission is in Park.
- LED 3 will be on when Park Brake is set.
- LED 4 will be on when Lift Door is open.
- LED marked "status" indicates "Vehicle Secure" or "Lift enabled" meaning there is 12V on Pin 3 (green wire) which connects to the lift.
- Cycling the key will exit Diagnostic Mode and all LED's will be off.

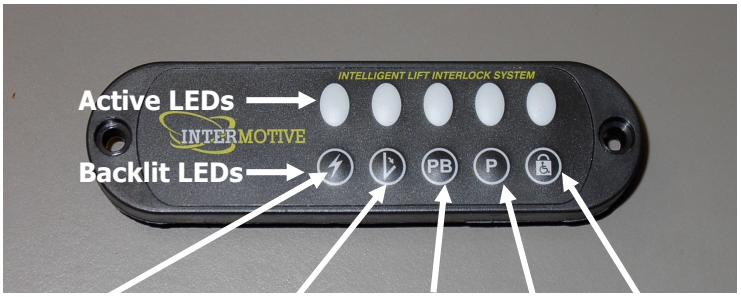


Leave in Vehicle
Operating Instructions ILISCT511-A Shift Interlock (Manual Lift Door)
2010-2013 Ford Transit Connect

The ILISCT511-A system is a microprocessor driven system for controlling wheelchair lift operation. The system operates with the vehicle ignition on or off. Lift operation will only be allowed as defined below in step 5.
Note: If "keying on" when module is asleep, all display LEDs will illuminate for approximately 2 seconds as a "prove out". The backlit LEDs remain on as long as the module is awake.

Key On function:

1. When the vehicle is in "Park" the (P) LED will be illuminated.
2. When the Park Brake is applied, the (PB) LED will be illuminated.
3. When the Lift Door is open, the Lift Door LED will be illuminated.
4. When the Park Brake is applied or the Lift Door is open, the Shift Lock LED will be illuminated.
5. With the vehicle in Park, Park Brake applied and Lift Door open, the Vehicle Secure LED will be illuminated and the lift will be operational. **All** active LEDs will be illuminated.



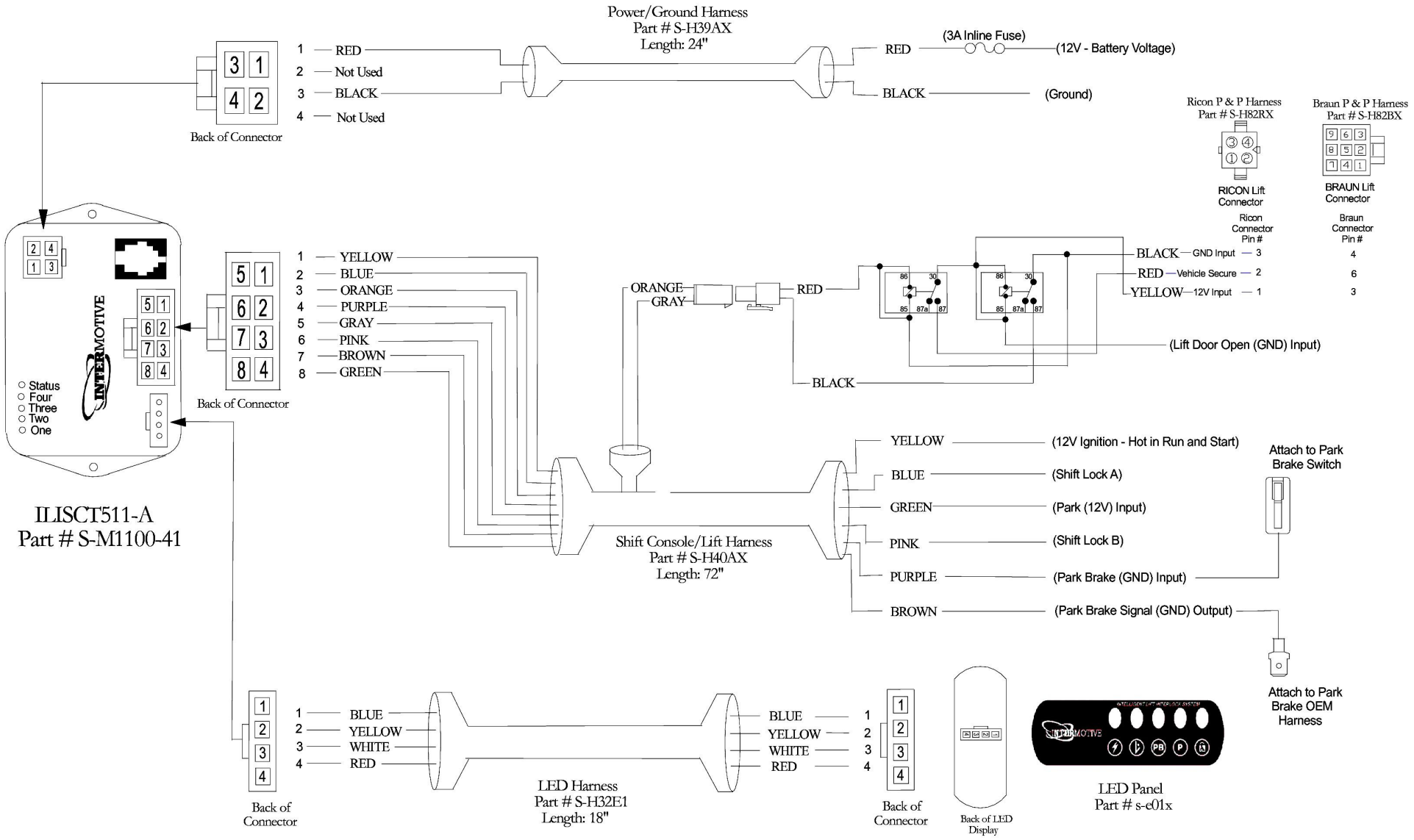
Vehicle Secure/Lift Power, Lift Door, Park Brake, Park, Shift Lock

Key off function: Same as "key on" except the Shift Lock LED is illuminated anytime the vehicle is in Park.

The ILISCT511-A will not allow the vehicle to be shifted out of Park if the Lift Door is open. As an added feature, it also will not allow the vehicle to be shifted out of Park anytime the Parking Brake is applied. This feature eliminates excessive Parking Brake wear due to driving with the Parking Brake applied.

The ILISCT511-A can operate with the vehicle ignition on or off. When the Lift Door is closed and ignition power is off for 5 continuous minutes, the system will enter a low current "sleep" mode of operation. To wake from "sleep" mode, the ignition must be turned on (key on), or the Lift Door must be opened.

Important note:
Do not leave the Lift Door open when the vehicle is not in use. The ILISCT511 will **NOT** enter a low-current sleep mode if the lift door remains open. This will cause a draw on the vehicle's electrical system and may result in a dead battery.



Submit product registration at www.intermotive.net

If the ILISCT511-A fails any step in the Post Installation Test, review the installation instructions and check all connections. If necessary, call InterMotive Technical Support at (530) 823-1048.